FORM PTO-1449 (Modified) U.S. Department of Commerce Patent and Trademark Office Serial No.: 10/698,180 Attorney Docket No.: COOL-00800 JAN 3 1 2007 INFORMATION DISCLOSURE STATEMENT BY APPLICANT Applicants: Giruish Upadhya et al. Group Art Unit: 3744 Filing Date: October 30, 2003 (37 CFR § 1.98(b)) **U.S. PATENT DOCUMENTS** Examiner Initials Applicant / Patentee Class Subclass Filing Date Serial / Patent Number Issue Date 126 10/25/1982 4,474,172 10/02/1984 Burke 449 AA 04/30/2003 110 ΑB US 2004/0216863 AT 11/04/2004 Ηu 165 AC ΑD ۸E AF ΑG ΑH Αl FOREIGN PATENTS OR PUBLISHED FOREIGN PATENT APPLICATIONS: Translation Class Subclass Document Number **Publication Date** Country / Patent Office No ΑK AL AΜ ΑN ΑO OTHER DOCUMENTS (Including Author, Title, Date, Relevant Pages, Place of Publication) ΑP ΑQ AR ΑS AT ΑU A۷ ΑW AXΑY ΑZ 2007 Date Considered: Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. **EXAMINER:**

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Applicants: Girish Upadhya et al.

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Attorney Docket No.: COOL-00800

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use Several Sheets If Necessary)

Applicants: Girish Upadhya et al.

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Title of Invention

OPTIMAL SPREADER SYSTEM, DEVICE AND METHOD FOR FLUID COOLED MICRO-SCALED HEAT EXCHANGE

Application Number:

10/698180

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Confirmation Number:

9903

First Named Applicant:

Girish Upadhya

Attorney Docket Number:

Art Unit: Examiner:

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(4203448 or 4235285 or 4345267 or 4716494 or 4978638 or 5397919 or 5886870

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<u>Certification:</u> This Information Disclosure Statement was submitted under the following conditions, which satisfies the requirement under 37 CFR 1.97(e). The filer certified:

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement.

US Patent Documents

Note: Applicant is not required to submit a paper copy of cited US Patent Documents

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XX	1	4203448	1980-05-20	Johnson et al.			
47	2	4235285	1980-11-25	Johnson et al.			
\prod	3	4345267	1982-08-17	Corman et al.			
\Box	4	4716494	1987-12-29	Bright et al.			
	5	4978638	1990-12-18	Buller et al.			
	6	5397919	1995-03-14	Tata et al.			
	7	5886870	1999-03-23	Omori			
П	8	6021045	2000-02-01	Johnson			
	9	6347036	2002-02-12	Yeager et al.	B1		
	10	6449157	2002-09-10	Chu	B1		
W	11	6449162	2002-09-10	Corbin, Jr. et al.	B1		
A	12	6459582	2002-10-01	Ali et al.	B1		

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4/2/07	
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Title of Invention

OPTIMAL SPREADER SYSTEM, DEVICE AND METHOD FOR FLUID COOLED MICRO-SCALED HEAT EXCHANGE

Application Number:

10/698180

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Confirmation Number:

9903

First Named Applicant:

Girish Upadhya

Attorney Docket Number:

Art Unit: Examiner:

Search string:

(2039593 or 4574876 or 6206022 or 6253835 or 6437981).pn

<u>Certification:</u> This Information Disclosure Statement was submitted under the following conditions, which satisfies the requirement under 37 CFR 1.97(e). The filer certified:

That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement.

US Patent Documents

Note: Applicant Is not required to submit a paper copy of cited US Patent Documents

in	it	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass
Si	r	1	2039593	1936-05-05	T. N. Hubbuch et al.			
7	/	2	4574876	1986-03-11	Aid			
		3	6206022	2001-03-27	Tsai et al.	B1		
\Box		4	6253835	2001-07-03	Chu et al.	B1		
V		5	6437981	2002-08-20	Newton et al.	B1		

Examiner Name	/ , Date
Name	4/2/07

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(6438984 or 6581388 or 6587343).pn

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US Patent Documents

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init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass
ZVC	1	6438984	2002-08-27	Novotny et al.	B1		
	2	6581388	2003-06-24	Novotny et al.	B2		
W	3	6587343	2003-07-01	Novotny et al.	B2		

Examiner Name	, Date
Name	4/2/07

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(5316077 or 6167948 or 6606251 or 20030062149).pn

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US Patent Documents

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init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass
	1	5316077	1994-05-31	Reichard			
	2	6167948	2001-01-02	Thomas	B1		
V	3	6606251	2003-08-12	Kenny, Jr. et al.	B1		

US Published Applications

Note: Applicant is not required to submit a paper copy of cited US Published Applications

init Cite.No	Pub. No.	Date	Applicant	Kind	Class	Subclass
XV 1	20030062149	2003-04-03	Goodson et al.	A1		

Examiner Name	Date
XVan	4/2/07

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Examiner:

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(0596062 or 2273505 or 4211208 or 6397932 or 20020075645).pn

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Γ	init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass
	M	1	0596062	1897-12-28	W. P. Firey			
4	7	2	2273505	1942-02-17	R. R. Florian			
Γ		3	4211208	1980-07-08	Lindner			
Γ	P	4	6397932	2002-06-04	Calaman et al.	B1		

US Published Applications

Note: Applicant is not required to submit a paper copy of cited US Published Applications

	.No. Pub. No.	Date	Applicant	Kind	Class	Subclass
KIL	20020075645	2002-06-20	Kitano et al.	A1		

Examiner Name	Date
XVIII	4/2/07
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Art Unit: Examiner:

Search string:

(3361195 or 3771219 or 4644385 or 4893174 or 5386143 or 5658831 or 5675473

or 6140860 or 6477045 or 6492200 or 6578626).pn

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US Patent Documents

Note: Applicant is not required to submit a paper copy of cited US Patent Documents

init	Cite.No.	Patent No.	Date	Patentee	Patentee Kind		Subclass
Suc	1	3361195	1968-01-02	A. Meyerhoff et al.			
	2	3771219	1973-11-13	Tuzi et al.			
	3	4644385	1987-02-17	Nakanishi et al.			
	4	4893174	1990-01-09	Yamada et al.			
	5	5386143	1995-01-31	Fitch			
	6	5658831	1997-08-19	Layton et al.			
	7	5675473	1997-10-07	McDunn et al.			
	8	6140860	2000-10-31	Sandhu et al.			
	9	6477045	2002-11-05	Wang	B1		
	10	6492200	2002-12-10	Park et al.	B1		
V	11	6578626	2003-06-17	Calaman et al.	B1		

Signature

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Attorney Docket Number:

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(5043797 or 5490117 or 5740013 or 5768104 or 5921087 or 6366467 or 6459581

or 6600220 or 6743664 or 20020121105 or 20030121274 or 20040040695 or 20040052049 or 20040089008 or 20040125561 or 20040160741 or 20040188069

).pn

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US Patent Documents

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in	it	Cite.No.	Patent No.	Date	Patentee	atentee Kind Class		Subclass
Z	7	1	5043797	1991-08-27	Lopes			
	\prod	2	5490117	1996-02-06	Oda et al.			
		3	5740013	1998-04-14	Roesner et al.			
П		4	5768104	1998-06-16	Salmonson et al.			
\Box		5	5921087	1999-07-13	Bhatia et al.			
		6	6366467	2002-04-02	Patel et al.	B1		
П	\prod	7	6459581	2002-10-01	Newton et al.	B1		
	\Box	8	6600220	2003-07-29	Barber et al.	B2		
4		9	6743664	2004-07-01	Liang et al.	B2		

US Published Applications

Note: Applicant is not required to submit a paper copy of cited US Published Applications

init	Cite.No.	Pub. No.	Date	Applicant	Kind	Class	Subclass
Ku	1	20020121105	2002-09-05	McCarthy, Jr. et al.	A1	_	
17	2	20030121274	2003-07-03	Wightman	A1	_	
Π	3	20040040695	2004-03-04	Chesser et al.	A1		
П	4	20040052049	2004-03-18	Wu et al.	A1		
Π	5	20040089008	2004-05-13	Tilton et al.	A 1	-	
1.7/	6	20040125561	2004-07-01	Gwin et al.	A 1		
W	7	20040160741	2004-08-19	Moss et al.	A1		
1	8	20040188069	2004-09-30	Tomioka et al.	A1		

Examiner Name	_/ _ Date
XVan	4/2/07



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Attorney Docket Number:

Search string:

(3948316 or 4467861 or 4574876 or 4884630 or 4903761 or 5016090 or 5161089 or 5179500 or 5228502 or 5239443 or 5265670 or 5269372 or 5275237 or 5310440 or 5346000 or 5388635 or 5945217 or 5978220 or 5993750 or 6019165 or 6034872 or 6039114 or 6253832 or 6257320 or 6330907 or 6336497 or 6366462 or 6367544 or 6431260 or 6466442 or 6519151 or 6533029 or 6536516 or 6601643 or 6609560 or 6651735

or 6729383 or 20030213580).pn.

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US Patent Documents

Note: Applicant is not required to submit a paper copy of cited US Patent Documents

init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass
ZV	1	3948316	1976-04-06	Souriau			•
	2	4467861	1984-08-28	Kiseev et al.			
	3	4574876	1986-03-11	Aid			
	4	4884630	1989-12-05	Nelson et al.			

				<u></u>	•
XVQ	5	4903761	1990-02-27	Cima]
	6	5016090	1991-05-14	Galyon et al.] .
	7	5161089	1992-11-03	Chu et al.	
	8	5179500	1993-01-12	Koubek et al.]
	9	5228502	1993-07-20	Chu et al.	
\Box	10	5239443	1993-08-24	Fahey et al.	
	11	5265670	1993-11-30	Zingher	
	12	5269372	1993-12-14	Chu et al.	
	13	5275237	1994-01-04	Rolfson et al.]
	14	5310440	1994-05-10	Zingher	
	15	5346000	1994-09-13	Schlitt	
	16	5388635	· 1995-02-14	Gruber et al.	ĺ
	17	5945217	1999-08-31	Hanrahan	j
	18	5978220	1999-11-02	Frey et al.	
	19	5993750	1999-11-30	Ghosh et al.	
	20	6019165	2000-02-01	Batchelder]
	21	6034872	2000-03-07	Chrysler et al.	
	22	6039114	2000-03-21	Becker et al.	
	23	6253832	2001-07-03	Hallefalt	B1
	24	6257320	2001-07-10	Wargo	B1
	25	6330907	2001-12-18	Ogushi et al.	B1
	26	6336497	2002-01-08	Lin	B1
	27	6366462	2002-04-02	Chu et al.	B1
	28	6367544	2002-04-09	Calaman	B1
	29	6431260	2002-08-13	Agonafer et al.	B1
	30	6466442	2002-10-15	Lin	B2
	31	6519151	2003-02-11	Chu et al.	B2
	32	6533029	2003-03-18	Phillips	B1
	33	6536516	2003-03-25	Davies et al.	B2
	34	6601643	2003-08-05	Cho et al.	B2
	35	6609560	2003-08-26	Cho et al.	B2
	36	6651735	2003-11-25	Cho et al.	B2
V	37	6729383	2004-05-04	Cannell et al.	B1

US Published Applications

Note: Applicant is not required to submit a paper copy of cited US Published Applications

init Cite.No.	Pub. No.	Date	Applic	ant	Kind	Class	Subclass		
1 1	20030213580	2003-11-20	Philpott et al.		A1	•			
Signature									
	Examiner Name / Date								
NCisic 9/2/2007									